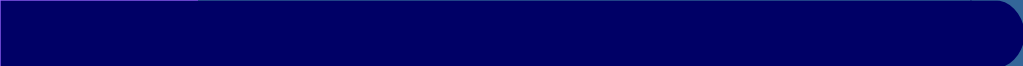


Patient Care Review:

Hypoparathyroidism

2LT Kristi Hart

Basic MNT



Preceptor: 2LT Crail

Patient

- SG
- 57 yo AA female
- Admitted 27 November
 - Discharged 2 December
- Chief Complaint:
 - Weakness and twitching,
N/V/D over last week

Diagnosis

- Chronic hypocalcemia and hypomagnesemia with EKG qt elongation secondary to hypoparathyroidism
- Hypothyroidism
- Chronic pain with opiate dependence
- Increased WBC

Review of hypoparathyroidism

- Definition:

Decreased activity of the parathyroid glands lead to decreased production and release of parathyroid hormone.

Parathyroid hormone regulates calcium, phosphorus, and magnesium balance within the blood and bone mineralization.

Etiology:

- Damage of parathyroid during surgery
- Genetic disorder
- Congenital absence of parathyroid glands
- Neonatal immaturity
- Massive radiation to the thyroid gland
- Magnesium deficiency
- Impaired skeletal or renal response

Signs and Symptoms:

- Hypocalcemia
- Hypomagnesemia
- Hyperphosphatemia
- Tingling of lips and hands
- Muscle cramps
- Pain in face, legs, feet
- Abdominal pain
- Dry, scaly skin
- Cataracts
- Tetany-muscle spasms
 - Chevostek's sign
- Convulsions or seizures

Treatment:

- Normalize serum levels
- High calcium, low phosphorus diet
- For chronic hypoparathyroidism, life-long oral calcium and vitamin D supplements usually needed.

Prognosis and Nutritional Implications:

- Prognosis is good if the diagnosis is made early and mineral levels normalized
- Nutritional management of Ca, PO₄, and Mg intake may decrease risk of significant variation in serum levels.

Past Medical History

- Thyroid Ca, thyroidectomy 1974
- Hypoparathyroidism 2° thyroidectomy
- Chronic hypocalcemia and hypomagnesemia
- Wrist surgery 2° IV calcium infiltrating
- Chronic pain with opiate/benzo dependence

Current treatment:

- Mineral supplements
 - IV and oral
- Monitor labs

Diet:

- Low phosphorus diet at home

Admission diet order: NPO (27 Nov)

Diet order 29 Nov: Regular

- Self restricted phosphorus intake

Anthropometrics

Height: 65 in., 165 cm

Weight: 154#, 70 kg

DBW: 130-144 (MHWT, med. frame)

112% DBW

Significant Labs

Lab test	Normal	27 Nov	29 Nov	2 Dec
Calcium	8-10 mg/dl	5.7	7.0	8.8
Ca corrected	8-10 mg/dl	6.2	7.9	9.1
Mg	1.7-2.9	1.2	2.1	1.7
PO4	2.3-4.5	5.1	3.8	3.0 ¹ Dec
Albumin	3.2-5.0	3.4	2.9	3.0 ¹ Dec

Medications

Medication	Dose	Concerns
Calcium carbonate	1000mg, 4x/day	Take w/meals, iron separate
Calcium glubionate	45 ml, 3x/day	
Calcitriol	0.50 mg, 3x/day	Not with Vit D or Mg suppl., nausea
Phoslo	667 mg, 3x/day	Take w/ meals, avoid Ca supp., ↓ Fe abs.
Mag-Ox	400 mg, 2x/day	
K-Dur	20 mEq, 1x/day	Take w/meals
Iron sulfate	325 mg 3x/day	Nausea
Premarin	1x/day	Take w/food, ↑ Ca abs., N/V, ↓ Mg
Synthroid	0.15mg, 1x/day	Take on empty stomach, iron separate

Nutritional Diagnostic Statement

Pt is at mild risk of malnutrition as evidenced by chronic hypocalcemia / hypomagnesemia and poor po intake for past seven days due to N/V.

Estimated Needs

- Caloric needs:
 - 1850 kcal/day (HB)
- Protein needs:
 - 56-70 g/day (0.8-1.0 g/kg)

Care Plan

Goal of Therapy:

- Increase oral intake to reduce risk of malnutrition
- Help normalize serum mineral levels

Plan:

- Education on high Ca foods
- Provide yogurt with each meal
- Recommend taking phoslo and iron supp. with meals

Outcomes

Potential health outcomes:

- Reduce recurrent episodes of symptomatic hypocalcemia
- Prevent future hospitalization

Potential resources saved:

- Decrease need for mineral supplementation
- Reduce cost of physician care
- Save money spent on hospital stays

Questions?
